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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/813,555	03/31/2004	Jonas Yngvesson	35947-202211	4107	
	26694 7590 06/24/2010 VENABLE LLP			EXAMINER	
P.O. BOX 3438		LAMPRECHT, JOEL			
WASHINGTON, DC 20043-9998			ART UNIT	PAPER NUMBER	
			3737		
			MAIL DATE	DELIVERY MODE	
			06/24/2010	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)				
Office Action Summary		10/813,555	YNGVESSON ET AL.				
		Examiner	Art Unit				
		JOEL M. LAMPRECHT	3737				
The Period for Re	ee MAILING DATE of this communication a eply	ppears on the cover sheet with the o	correspondence address				
WHICHE - Extensions after SIX (6 - If NO perio - Failure to r Any reply r	TENED STATUTORY PERIOD FOR REPOWER IS LONGER, FROM THE MAILING of time may be available under the provisions of 37 CFR of MONTHS from the mailing date of this communication. If d for reply is specified above, the maximum statutory period ply within the set or extended period for reply will, by state eceived by the Office later than three months after the mainent term adjustment. See 37 CFR 1.704(b).	DATE OF THIS COMMUNICATION 1.136(a). In no event, however, may a reply be tiled will apply and will expire SIX (6) MONTHS from the, cause the application to become ABANDONE	N. mely filed the mailing date of this communication. ED (35 U.S.C. § 133).				
Status							
1)⊠ Res	sponsive to communication(s) filed on <u>09</u>	March 2010.					
·	This action is FINAL . 2b) ☐ This action is non-final.						
′=	· · · · · · · · · · · · · · · · · · ·						
•	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition (of Claims						
4)⊠ Cla	im(s) <u>1-67</u> is/are pending in the applicatio	ın					
•	4a) Of the above claim(s) is/are withdrawn from consideration.						
•	Claim(s) is/are allowed.						
· <u> </u>	☐ Claim(s) is/are rejected.						
•	im(s) is/are objected to.						
·	_						
Application I							
_	•	205					
9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.							
•							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.							
•	er 35 U.S.C. § 119						
<u> </u>	-	un maioritu um don 25 II C.C. S. 110/a) (d) on (f)				
•	Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
	a) All b) Some * c) None of:						
	 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 						
	3. Copies of the certified copies of the priority documents have been received in Application No						
٥.	application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.							
Attachment(s)							
	References Cited (PTO-892)	4) 🔲 Interview Summary	(PTO-413)				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date.							
 Informatio Paper No(ratent Application						
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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-66 are rejected under 35 U.S.C. 102(e) as being anticipated by Prince et al (US 6,892,089 B1). Prince et al disclose a method and system for measuring and generating a sequence of cardiac motion images including definition of reference points, measurement points (Col 6 Line 55-Col 8 Line 60, Col 9 Line 10-Col 10 Line 25), tracking software for developing motion vectors and derivations of acceleration/speed from data including length, change of length, motion direction, speed, acceleration (Col 16 Line 50-Col 18 Line 15, Col 13 Line 24-Col 15 Line 45), comparative measurements of speed/acceleration/direction across multiple points (Col 18 Line 10-15, Line 30-50), 1d/2d search fields (Col 15 Line 5-Col 19 Line 45, Col 16 Line 65-Col 17 Line 35, Col 13 Line 40-Col 14 Line 20), as well as normalization of the contrast/intensity/brightness of the image sequence (Example 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prince et al in view of Acharya (US 2003/0045803 A1). Prince as recited above, discloses the invention as claimed, except the scanning device of Prince is an MR device.

Projections and mapping withstanding, attention is directed to the secondary reference to Acharya which discloses scanning with a CT device for cardiac motion analysis and estimation (Page 1). The heart is isolated (Page 2, Paragraphs 19-25) and motion signatures for physiological locations within the heart are projected [0026] for automated processing [0026-0029]. It would have been obvious to have applied the algorithms and processing of motion data of Prince et al with the scanning device of Acharya for the formation of diagnostically relevant reconstructed images of a moving organ (such as the heart [0019-0020])

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Response to Arguments

Applicant's arguments filed 3/9/2010 have been fully considered but they are not persuasive. Applicant has first argued that Prince et al does not disclose definition of a reference point, and measurement point(s) during image analysis. As noted by Applicant, Col 17-18 shows multiple measurement points being used to determine strain(s) and iteratively apply algorithms to HARP images. Prince et al uses a (Fig 6 and discussion, and Col 24 Line 45-65) reference coordinate system to track absolute position of these measurement points versus a reference, and the displacement of the points relative to themselves and one-another is used for analysis. The reference point itself can also be (as from the discussion of figure 6) position at a T=0 (end systole or diastole and coordinate shifts can be based off of the position relative to T=0 during analysis.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

than SIX MONTHS from the mailing date of this final action.

the advisory action. In no event, however, will the statutory period for reply expire later

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOEL M. LAMPRECHT whose telephone number is (571)272-3250. The examiner can normally be reached on 8:30-5:00 Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRIAN CASLER/ Supervisory Patent Examiner, Art Unit 3737